

CLAIMS

What is claimed is:

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1. A method of processing video data comprising the steps of:
2 accepting video data from a video source; and
3 storing video information associated with the video data as the video data is being
4 accepted, the video information being stored as annotations to the video data.
 - 1 2. The method of claim 1, wherein the video information comprises camera
2 geometry information.
 - 1 3. The method of claim 1, wherein the video information comprises camera
2 pose information.
 - 1 4. The method of claim 1, wherein the video information comprises source
2 identification/description/illumination information.
 - 1 5. The method of claim 1, wherein the video data comprises frame data
2 obtained from an encoder.

1 6 The method of claim 1, wherein the video source comprises a video
2 capture device.

1 7. The method of claim 5, further comprising gathering a current state of the
2 frame data.

1 8. The method of claim 7, further comprising comparing the current state
2 with the camera geometry information, the camera pose information and the source
3 identification/description/illumination information of the frame data.

1 9. The method of claim 8, further comprising determining differential
2 information from a result of the comparing step.

1 10. The method of claim 9, further comprising appending the differential
2 information to the frame data.

1 11. An apparatus comprising:
2 a collector configured to collect video information to be associated with video
3 data gathered from a video source; and
4 an annotator coupled to the collector, the annotator configured to annotate the
5 video data with the video information.

1 12. The apparatus of claim 11, wherein the video information comprises one
2 or more of: camera geometry; camera pose information; and source
3 identification/description/illumination information.

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1 13. The apparatus of claim 12, further comprising calibration software
2 configured to generate the camera geometry information for the video data as the video
3 data is being gathered by the video source and provide the generated camera geometry
4 information to the collector.

1 14. The apparatus of claim 12, further comprising pose estimation software
2 and configured to generate the camera pose information for the video data as the video
3 data is being gathered by the video source and provide the generated camera pose
4 information to the collector.

1 15. The apparatus of claim 12, further comprising an encoder configured to
2 encode the video data and generate frame data as an input to the annotator.

1 16. The apparatus of claim 15, wherein the encoder forwards a current state of
2 the frame data to a state storage device coupled to the encoder.

1 17. The apparatus of claim 16, further comprising a comparator configured to
2 compare the current state with the video information of the frame data.

1 18. The apparatus of claim 17, further comprising a differential information
2 generator coupled to the state storage device, the comparator and the encoder and
3 configured to generate differential information from the result of the comparison
4 performed by the comparator and forward the differential information to the encoder.

1 19. A computer readable media containing executable computer program
2 instructions which when executed on a digital processing system causes the system to
3 perform a method comprising:
4 accepting video data from a video source; and
5 storing video information for the video data as the video data is accepted, the
6 video information being stored as annotation to the video data for later use.

1 20. The computer readable media of claim 19, wherein the video information
2 is camera geometry information.

1 21. The computer readable media of claim 19, wherein the video information
2 is camera pose information.

1 22. The computer readable media of claim 19, wherein the video information
2 is source identification/description/illumination information.

1 23. The computer readable media of claim 19, wherein the video data is a
2 frame data obtained from an encoder.

1 24. The computer readable media of claim 19, wherein the video source is a
2 video capture device.

1 25. The computer readable media of claim 19, further comprising gathering
2 current state of the frame data.

1 26. The computer readable media of claim 25, further comprising comparing
2 the current state with the camera geometry information, the camera pose information and
3 the source information of the frame data.

1 27. The computer readable media of claim 26, further comprising determining
2 differential information from result of the comparing.

28. The computer readable media of claim 27, further comprising appending the differential information to the frame data.

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